

WHAT IS CLAIMED IS:

1. A sintered ferrite body having a main composition comprising 63-80% by mol of Fe₂O₃, and 3-15% by mol of ZnO, the balance being manganese oxide; R_{cal} determined from the Fe₂O₃ content X (% by mol) by the formula (1) of R_{cal} = [200(X-50)]/(3X), and the ratio R (%) of Fe²⁺ per the total amount of Fe in said sintered body meeting the condition of R_{cal} - 2.0 ≤ R ≤ R_{cal} + 0.3; and said sintered body having a density of 4.9 g/cm³ or more.
2. The sintered ferrite body according to claim 1, wherein the main composition comprises 68-75% by mol of Fe₂O₃, and 3-12% by mol of ZnO, the balance being manganese oxide.
3. The sintered ferrite body according to claim 1 or 2, comprising 0.02-0.3% by weight (calculated as CaCO₃) of Ca, and 0.003-0.015% by weight (calculated as SiO₂) of Si, as sub-components, per 100% by weight of the main composition.
4. The sintered ferrite body according to any one of claims 1-3, wherein it has volume resistivity of 0.1 Ω·m or more.
5. The sintered ferrite body according to any one of claims 1-4, wherein it has a minimum-core-loss temperature of 80°C-120°C.
6. An electronic part comprising a magnetic core formed by the sintered ferrite body recited in any one of claims 1-5, and winding.
7. A method for producing a sintered ferrite body having a main composition comprising 63-80% by mol of Fe₂O₃, and 3-15% by mol of ZnO, the balance being manganese oxide; R_{cal} determined from the Fe₂O₃ content X (% by mol) by the formula (1) of R_{cal} = [200(X-50)]/(3X), and the ratio R (%) of Fe²⁺ per the total amount of Fe in the sintered body meeting the condition of R_{cal} - 2.0 ≤ R ≤ R_{cal} + 0.3; and said sintered body having a density of 4.9 g/cm³ or more, said method comprising a step of adding a binder to ferrite powder, a molding step, a binder-removing step and a sintering step, said ferrite powder having a spinelization ratio S of 10-60%; the amount V (% by weight) of said

binder added being in a range of $1.3 - 0.02S \leq V \leq 2.3 - 0.02S$, assuming that the total amount of said ferrite powder and said binder is 100% by weight; the oxygen concentration in the atmosphere from said binder-removing step to the completion of said sintering step being 0.1% or less by volume.

5 8. The method for producing a sintered ferrite body according to claim 7, wherein said spinelization ratio of ferrite powder is 10-40%.

9. The method for producing a sintered ferrite body according to claim 7 or 8, wherein said ferrite powder has a specific surface area of 3000-7000 m^2/kg .

10 10. The method for producing a sintered ferrite body according to any one of claims 7-9, wherein the main composition of said sintered ferrite body comprises 68-75% by mol of Fe_2O_3 , and 3-12% by mol of ZnO , the balance being manganese oxide.

11. The method for producing a sintered ferrite body according to any 15 one of claims 7-10, wherein 0.02-0.3% by weight (calculated as $CaCO_3$) of Ca, and 0.003-0.015% by weight (calculated as SiO_2) of Si are added as sub-components to 100% by weight of said main composition.